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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/874,467

06/04/2001

Ji Zhang

CISCP 196/3392

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07/26/2006

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EXAMINER

DIEP, NHON THANH

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/874,467

Applicant(s)

ZHANG ET AL.

Examiner

Nhon T. Diep

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-29 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 6/4/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The indicated allowability of claims 20-24, 40 and 48 is withdrawn in view of a newly discovered reference(s) to (US), the examiner apologizes for any inconvenience caused.

Rejections based on the newly cited reference follow.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-9, 14, 23, 27 and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Li (US 6,275,531).

Li discloses a scalable video coding method and apparatus comprising the same system for providing a bitstream including compressed video data, the system comprising: a tiling apparatus that receive first compressed video data at a low resolution (fig. 1, el 40 which receives compressed video data from el 30), and outputs tiled first compressed video data such that it is displayable using a high resolution (enhancement bitstream 1...9); and a combiner that receives the tiled first compressed video data displayable using the high resolution and receives second compressed video data at the high resolution and combines the tiled first compressed video data and the

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second compressed video data together to provide an output bitstream including the tiled first compressed video data and the second compressed video data (Mux 50) as specified in claims 1, 7, 23 (notice that compressed data as outputted from el. 30 is not decoded) and 27; wherein the tiling apparatus comprises a static video data generator that generates static compressed video data displayable using the high resolution; wherein the tiling apparatus comprises a tiler that combining the first compressed video data at the low resolution and the static compressed video data from the static video data generator; wherein the static video data generator includes a compressed static video data buffer; further comprising a scan controller that selects high resolution macroblocks that the tiler tiles using macroblocks from the first compressed data or the static compressed video data (el. 40) as specified in claims 2-5 and 28-29; wherein the tiling apparatus receives third compressed video data at a third resolution, and outputs the tiled first compressed video data such that it is displayable at the third resolution (enhancement bitstream 10-N) as specified in claim 6; wherein converting the first compressed video data comprises combining the first compressed video data with additional compressed video data such that the first compressed video data and the additional video data is displayable at the high resolution (notice that output from el. 30 is combined with additional data in the encoder 40 and since output from el 30 is compressed bitstream, the additional data to be added in the encoder 40 must be in the compressed domain) as specified in claim 8; wherein the bitstream is an MPEG-2 compressed bitstream (col. 2, ln. 51-63) as specified in claim 9; wherein converting the

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first compressed video data such that it is displayable using the high resolution is performed in real time (el. 40) as specified in claim 14.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10-13, 15-17, 19-22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Li.

As applied to claims 1, 7 and 23 above, it is noted that Li does not particularly disclose that:

a. wherein combining the first compressed video data with additional video data is performed by tiling macroblock from the first compressed video data and macroblocks from the additional compressed video data as specified in claim 10; wherein the additional video data includes static video data macroblocks as specified in claims 11 and 20; further including determining the size of a low resolution border around a set of macroblocks included in a frame of the first compressed video data as specified in claims 12, 19 and 24; and wherein macroblocks from the first compressed video data are tiled within the low resolution border and macroblocks from the additional video data are tiled outside the low resolution border as specified in claims 13, 21 and 25-26;

b. including transcoding the output compressed bitstream as specified in claim 15; wherein combining the converted first compressed video data and the second compressed video data into the output compressed bitstream includes splicing the converted first compressed video data and the second compressed video data as specified in claim 16; and further including inserting pan-and-scan information into the compressed bitstream as specified in claims 17 and 22.

With regard to a: Even though, Li does not particularly disclose the process of tiling additional compressed macroblocks into a compressed low resolution frame as claimed in claims 10-12, 19-21 and 24-26; however, as a matter of designer's choice, one ordinary skilled in the art at the time the invention was made would have found it obvious to simplify the tiling process by determining the size of a low resolution border around a set of macroblocks included in a frame of the low compressed video data and tiling or padding additional compressed macroblocks around the border of the compressed low resolution frame to create a compressed high resolution frame.

With regard to b: The examiner takes Official Notice that transcoding compressed output bitstream to obtain new bitstream with different bit rate and splicing two compressed bitstream and inserting information into a compressed bit stream are all well known features in the pertinent art and therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Li by performing transcoding, splicing and/or inserting information into the compressed bitstream. Doing so would help to increase the flexibility of the system of Li.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Lim (US 5,508,746) discloses an advanced television system.

b. Lee (US 6,259,732) discloses a method and apparatus for encoding interlaced macroblock texture information.

c. Eifrig et al (US RE38,564) discloses a motion estimation and compensation of video object planes for interlace digital video.

d. Takahashi (US 5,912,709) discloses a method and apparatus for editing or mixing compressed pictures.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T. Diep whose telephone number is 571-272-7328. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ND
7/21/2006



**NHON DIEP
PRIMARY EXAMINER**